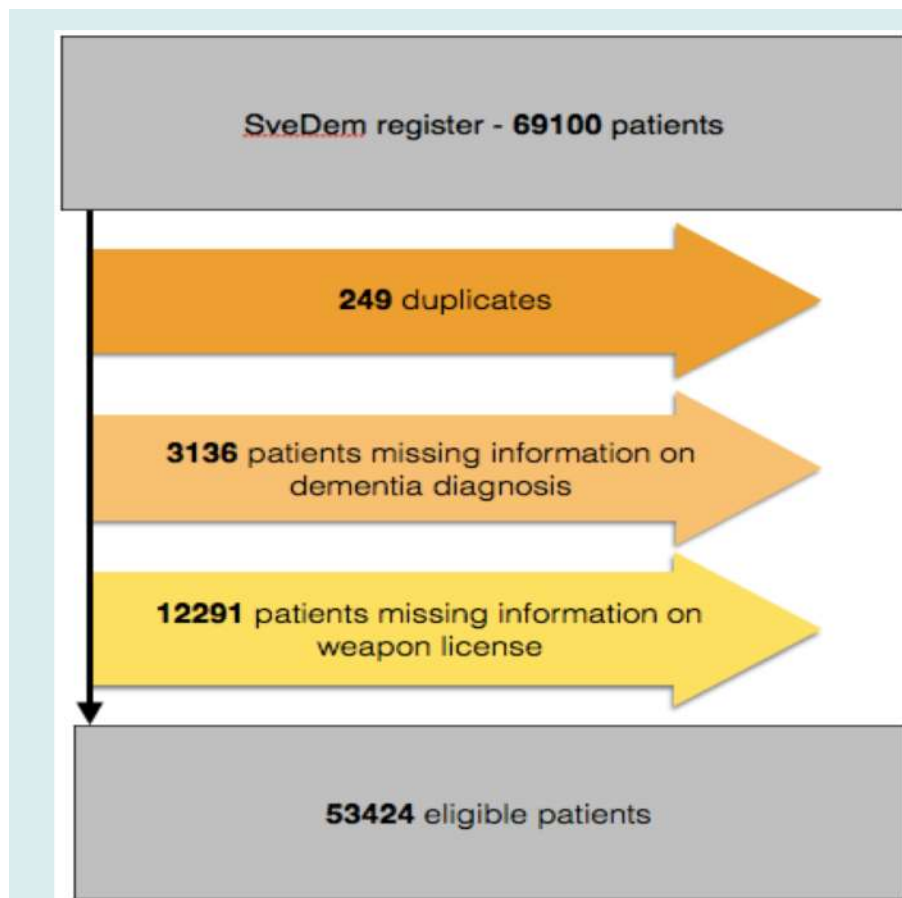


# Weapon license in dementia patients

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## Conclusions:

### Patients with weapon license:

On average are younger, more often are men, have higher MMSE score, less medication and more often live with another person in their homes.

### Suitability to possess a weapon:

FTD patients are more often reported as unsuitable to possess weapon license.

**Our results indicate that in the physicians' opinion, patients with FTD may pose a greater risk of committing violent act.**

## Introduction

In Sweden there is more than 600,000 licensed firearm owners and approximately 170,000 patients with a dementia diagnosis. This study aims to explore properties of firearm ownership in a large population of Swedish dementia patients.

## Aim

The aim is to specify socio-demographic and clinical characteristics of dementia patients owning firearms, as well as factors influencing the decision to report a patient as non-suitable to possess firearms to authorities.

## Results

In total **1,826 (3.4%)** patients had weapon licence and **347 (10.2%)** were reported to authorities. In adjusted models, FTD was associated with increased risk of being reported as non-suitable to possess firearms comparing to AD patients and OR = 4.18 (2.22-7.89)

## Method

- This was a registry-based cohort study.
- Sample consisted of patients diagnosed with dementia and registered in the Swedish Dementia Registry (n = 69,100).
- Eight subtypes of dementia were included the study: Alzheimer Disease (AD), Mixed Dementia (Mixed), Vascular dementia (VAD), Lewy body dementia (LBD), Frontotemporal dementia (FTD), Unspecified dementia (UNS) and Other types of dementia (Other). Logistic regression was used to estimate odds ratio (OR) of being reported as non-suitable to possess firearms to authorities in each dementia diagnoses with AD as a reference.
- Final model was adjusted for age, sex, Mini-Mental State Examination and, living arrangement and antipsychotics use.

Weapon license	Yes	No	p
<b>Gender – female n (%)</b>	176 (9.6)	31,652 (61.3)	<0.001
<b>Age mean (SD)</b>	77.6 (7.5)	80.2 (7.9)	<0.001
<b>Living n (%)</b>			<0.001
<b>With somebody</b>	1,283 (70.3)	23,980 (46.5)	
<b>Alone</b>	464 (25.4)	21,939 (42.5)	
<b>Nursing home</b>	72 (3.9)	5,443 (10.5)	
<b>Number of medicines mean (SD)</b>	4.3 (3.1)	4.8 (3.2)	<0.001
<b>MMSE score mean (SD)</b>	21.5 (4.8)	20.9 (5.0)	<0.001
<b>Neuroleptics n (%)</b>	72 (3.9)	2,986 (5.8)	0.001
<b>Antidepressants n (%)</b>	432 (23.7)	14,408 (27.9)	<0.001
<b>Anxiety suppressors n (%)</b>	120 (6.6)	5,406 (10.5)	<0.001



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